

REMARKS

Reconsideration of the above-identified application in view of the foregoing amendments and following remarks is respectfully requested.

At the outset, Applicants' and the undersigned wish to express their sincere thanks to the Examiner for extending the courtesy of a telephonic interview on April 1, 2008. During the interview, a proposed amendment to claim 1 was discussed as well as the Molbak, Dobbins and Stieber references cited in the Office Action.

A. Status of the Claims and Explanation of Amendments

Claims 1-32 were pending. By this paper, independent system claims 1, 8, 14 and 27 are amended and new method claim 33 is added.

Claims 1, 8, 14 and 27 are amended to recite, *inter alia*, "a memory configured to store a normal acceptance window comprising a lower safety margin, a central high probability region and an upper safety margin and a restricted acceptance window comprising the central high probability region." These claims are further amended to recite, *inter alia*, that the processing means is configured to "utilize the normal acceptance window as the acceptance criteria until" an alarm signal is received by said communication means via the network, and "thereafter to modify the acceptance criteria to a restricted acceptance window, which excludes the lower and upper safety margins of the normal acceptance window."

In addition, a new method claim 33 is added, which describes a "method of limiting fraud in connection with a plurality of networked coin or note operated

machines.” The method comprises “sensing parameters of an item submitted to one of the networked coin or note operated machines” and then “determining acceptability of the item submitted by evaluating the sensed parameters based on an acceptance criteria.”

Claim 33 recites that the acceptance criteria “represents a distribution of sensed parameters for genuine coins or notes of a particular denomination.” Then “transmitting an alarm signal among the networked coin or note operated machines in response to a condition indicative of a fraud attempt.” “[I]n the determining step the acceptance criteria is a normal acceptance window having a high probability region where there is a relatively high probability of occurrence of a true value and lower and upper safety margins where there is a relatively low probability of occurrence of a true value.” If “an alarm signal has been transmitted among the networked coin or note operated machines,” then “the acceptance criteria is a restricted acceptance window which excludes the lower and upper safety margins of the normal acceptance window.” “[T]he condition indicative of a fraud attempt comprises an occurrence of one of the sensed parameters within one of the lower safety margins and the upper safety margins.”

Support for these amendments is found throughout the application as originally filed, including for example pages 3, 7-10 and Figure 4. No new matter will be added to this application by entry of these amendments. Entry is requested.

Claims 1-32 were rejected pursuant to 35 U.S.C. § 112, ¶1 for the alleged failure to comply with the written description requirement. [1/11/08 Office Action at p. 2]. The Office Action argues that the specification fails to properly describe

“modify[ing] the acceptance criteria to a restricted acceptance window, which excludes lower and upper safety margins.” [*Id.*]

Applicants respectfully traverse this rejection and request reconsideration, because support for this claim language is found in the specification as filed including for example pages 5-6 and figure 4.

The written description requirement of Section 112 is satisfied when the specification “set[s] forth enough detail to allow a person of ordinary skill in the art to understand what is claimed and to recognize that the inventor invented what is claimed.” *University of Rochester v. G.D. Searle & Co., Inc.*, 358 F.3d 916, 928, 69 U.S.P.Q. 2d 1886, 1896 (Fed. Cir. 2004). It is the PTO’s “initial burden [to] present[] evidence or reasons why persons skilled in the art would not recognize in the disclosure a description of the invention defined by the claims.” *In re Wertheim*, 541 F.2d 257, 263, 191 U.S.P.Q. 90, 97 (CCPA 1976).

Applicants’ figure 4 shows distribution curves of coin parameter signals produced by an acceptor for a true coin (20) and a foreign coin (21):

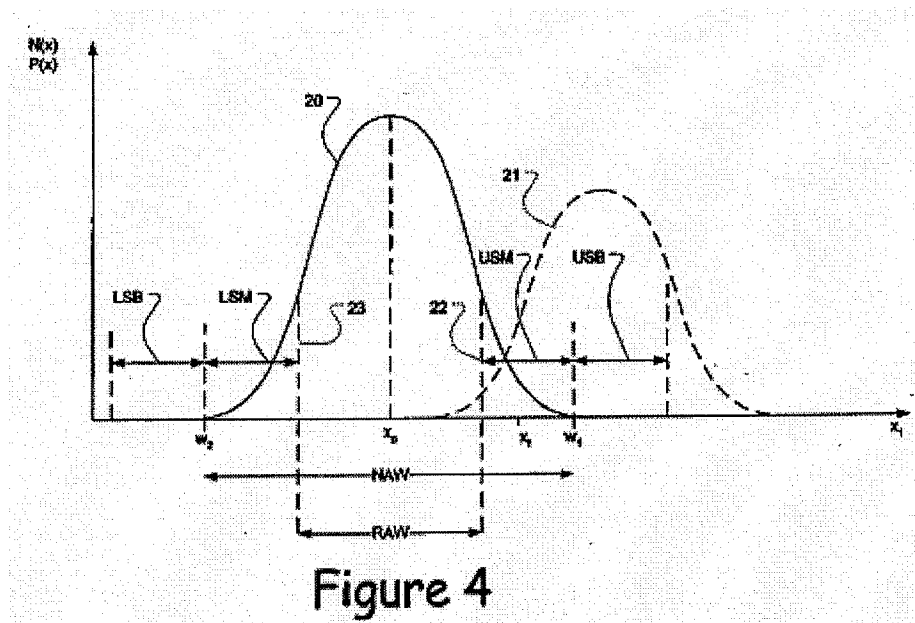


Figure 4

Upper safety margins (USM) and lower safety margins (LSM) are depicted and define regions of relatively low probability of an occurrence of a parameter value corresponding to a true coin. [Specification, p. 6, lines 10-12]. When a potentially fraudulent coin is detected that is within either the LSM or USM, a microcontroller (11) then “changes from the normal acceptance window NAW to a restricted acceptance window RAW.” [Specification, p. 6, lines 16-20]. “In practice, the RAW may correspond to the region of high probability between the dotted lines 22, 23” [Specification, p. 6, lines 20-23]. Thus, these exemplary passages expressly describe changing the normal acceptance window to a restricted acceptance window excluding upper and lower safety margins. Withdrawal of the written description rejection is respectfully requested.

Claims 1-32 also were rejected pursuant to 35 U.S.C. § 101 as allegedly lacking utility. [1/11/08 Office Action at p. 3]. The Office Action comments that

Applicants disclose the use of communication via the Bluetooth standard, and therefore if Applicants argue that “the Steiber [sic] reference is inoperative for two-way communication” then “it is reasonable to make the conclusion that Applicants’ system must also be inoperative as it is disclosed” [*Id.*]

Applicants’ respectfully disagree for several reasons. First, the Office Action’s rejection is premised on a misinterpretation or misunderstanding of Applicants’ statements in the October 29, 2007 Preliminary Amendment, which were not intended to suggest that Stieber is “inoperative.” Instead, Stieber’s use of the Bluetooth standard requires the communication to be between the base cash handling device (12), i.e., the master device, and each individual peripheral device (13, 18, 20, 22), i.e., the slave devices. [10/29/07 Prel. Amdt. at p. 17]. Consistent with Applicants’ understanding, Stieber only discusses the transmission of commands and information from the base cash handling device (12) to the slave devices (13), and the transmission of information from the slave devices (13) to the base cash handling device (12). Stieber never discusses communication between the slave devices themselves. Applicants merely were pointing out that Stieber does not operate in a manner as recited in Applicants’ pending claims.

Second, the Office Action has applied the wrong legal standard. “To violate § 101 the claimed device must be ***totally incapable*** of achieving a useful result.” *Brooktree Corp. v. Advanced Micro Devices, Inc.*, 977 F.2d 1555, 1571, 24 U.S.P.Q. 2d 1401, 1412 (Fed. Cir. 1992) (emphasis added). Because the PTO cannot make a *prima facie* showing that the claimed invention lacks any utility, the rejection is improper and

should be withdrawn. *In re Gaubert*, 524 F.2d 1222, 1224, 187 U.S.P.Q. 664, 666 (CCPA 1975).

Applicants' disclosure is *not* limited to the use of the Bluetooth standard and includes embodiments which unquestionably are operative.¹ The specification discloses that various data networks may be employed, such as Ethernet, Bluetooth, or 802.11 protocols when "it is desirable for acceptors to be alerted to attempted frauds in real time." [Specification, p. 2, lines 4-5]. In the detailed description of the preferred embodiments, "an Ethernet network 101" is employed to permit direct communication between and among the acceptors. [Specification, p. 3, lines 1-2]. The Office Action does not contend, for example, that the Ethernet embodiment is inoperative, and therefore has not met the burden to show that the claimed invention lacks any utility. See *E.I. du Pont De Nemours and Co. v. Berkley and Co.*, 620 F.2d 1247, 1260 n.17, 205 U.S.P.Q. 1, 10 n.17 (8th Cir. 1980) ("A small degree of utility is sufficient The claimed invention must only be capable of performing some beneficial function An invention does not lack utility merely because the particular embodiment disclosed in the patent lacks perfection or performs crudely") Withdrawal of the Section 101 rejection is respectfully requested.

As to the merits, each of the previously pending claims was found to be novel over the prior art, but the office action has rejected the claims pursuant to 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,494,776 to Molbak

¹ Applicants do not concede that the Office Action is correct in its assertion that Applicants' claims would be inoperative if Bluetooth standard communication were employed.

("Molbak") in view of U.S. Patent No. 5,730,272 to Dobbins et al. ("Dobbins") and further in view of US 2002/0100660 to Stieber et al. ("Stieber"). [1/11/08 Office Action at pp. 3-5].

B. Claims 1-32 are Patentably Distinct from Molbak, Dobbins and Stieber

The rejection of claims 1-32 as allegedly being obvious over Molbak, Dobbins and Stieber is respectfully traversed. None of the cited references teaches, discloses or suggests "modify[ing] the acceptance criteria to a restricted acceptance window, which excludes the lower and upper safety margins of the normal acceptance window" in response to a condition indicative of fraud as recited in Applicants' independent claim 1. Molbak and Stieber have nothing whatsoever to do with responding to alarm signals and modifying acceptance criteria. Although Dobbins is more relevant in this regard, it does not read on Applicants' claim 1. These deficiencies make the pending Section 103 rejection improper. See MPEP § 2143.03.

Specifically, Applicants' claim 1 recites:

"1. A system for accepting money items or the like, the system comprising:

a network; and

a plurality of first, second and third acceptors in communication with one another via the network, each acceptor comprising

a memory configured to store a normal acceptance window comprising a lower safety margin, a central high probability region and an upper safety margin and a restricted acceptance window comprising the central high probability region,

sensing means for sensing parameters of an item submitted to the acceptor,

processing means for determining acceptability of the item submitted to the acceptor in the basis of an acceptance criteria using the parameters thereof sensed by the sensing means, and

communication means, associated with the processing means, for sending alarm signals from the acceptor and receiving alarm signals from other acceptors, via the network, wherein the processing means is configured to respond to a condition indicative of a fraud attempt by sending an alarm signal to a plurality of other acceptors using said communication means and

wherein the processing means is configured to utilize the normal acceptance window as the acceptance criteria until an alarm signal is received by said communication means via the network, and thereafter to modify the acceptance criteria to a restricted acceptance window, which excludes the lower and upper safety margins of the normal acceptance window.”

1. *Molbak Does Not Address Fraud Detection Or Responses Thereto And Cannot Disclose Applicants’ Processing Means*

Molbak describes an apparatus to receive unsorted coins, to sort and to count those coins, and then to issue a voucher for the counted coins. [Molbak, Col. 2, lines 48-51].

It is undisputed that Molbak fails to disclose Applicants’ processing means. [1/11/08 Office Action at p. 4 (“Molbak does not expressly disclose ... processing means [], said processing means sending an alarm upon detection of a fraud attempt”)] Thus, Applicants and the Examiner *agree* that Molbak fails to teach, disclose or suggest “the processing means [] configured to utilize the normal acceptance window as the acceptance criteria until an alarm signal is received by said communication means via the

network, and thereafter to modify the acceptance criteria to a restricted acceptance window, which excludes the lower and upper safety margins of the normal acceptance window” as recited in Applicants’ claim 1.

2. *Dobbins Shifts A Coin Acceptance Criteria Away From A Potentially Fraudulent Coin And Does Not Disclose Applicants’ Processing Means Which Modifies The Acceptance Criteria To A Restricted Acceptance Window, Which Excludes The Lower And Upper Safety Margins Of The Normal Acceptance Window*

Dobbins is directed to a method for improved coin, bill and other currency acceptance and slug or counterfeit rejection. The Office Action asserts that Dobbins discloses a processing means (35) for “sending an alarm upon detection of a fraud attempt, said alarm causing said processor to modify its acceptance criteria” at column 2, lines 14-18 and column 7, lines 1-59. [1/11/08 Office Action at pp. 4-5, 6]. The Office Action also asserts that Dobbins discloses “the adjustment of the upper and lower limits of a ... acceptance window ... for each denomination.” [1/11/08 Office Action at p. 8 (citing column 6, line 55 – column 7, line 20)].

Initially, we should address a potential misunderstanding about Applicants’ claim language. The Office Action asserted that “Applicants’ claims *only* require modifying the acceptance window.” [1/11/08 Office Action at p. 10 (emphasis added)]. This assertion is inconsistent with the language of Applicants’ claim 1, which recites more. In addition to modifying an acceptance window, Applicants’ claim 1 further specifies what that modification is – excluding lower and upper safety margins. This feature simply is not disclosed by Dobbins as will now be discussed.

Dobbins disclosure, including those portions called out by the Office Action, does not disclose the above feature of Applicants' claim 1. Dobbins' passage at column 2, lines 14-18 states that a "second aspect" of his "invention" is preventing fraud by temporarily changing coin acceptance criteria when a potential fraud attempt is detected. This passage does *not* disclose sending an alarm upon detection of a fraud attempt.

Likewise, the discussion in column 7 relied upon by the Office Action does not support the rejection. It relates to the first aspect of Dobbins disclosure, i.e., "Improved Definition of Coin Acceptance Criteria," and also does not disclose sending an alarm upon detection of a fraud attempt. [Column 6, lines 54-55]. Most generally, the cited passage describes a method for defining coin acceptance criteria for a particular coin based on historical information that is permanently stored in a look-up table (i.e., the initial calibration and tuning of the device). [Column 9, lines 1-13 and 42-51]. This technique is not used in real-time to modify the acceptance criterion over time in response to fraud attempts.

Empirical data is obtained for legitimate U.S. currency and also for various counterfeit coins, using two or more independent tests. [Dobbins, Col. 6, lines 55-56]. A coin is deemed authentic if all the test results equal or come close to the results expected for a coin of that denomination. [Dobbins, Col. 6, lines 57-60]. For example, measurements may correspond to thickness, diameter and material content. [Dobbins, Col. 6, lines 60-63]. For any one of the tests, a sensed value is expected to fall within a

range (or window) within upper and lower limits. [Dobbins, Col. 6, line 66 – Col. 7, line 2]. If all measurements are within the expected ranges, the coin is deemed to be acceptable. [Dobbins, Col. 7, lines 4-6].

Thus, the data for valid currency is used to create a “cluster” of acceptance values C_A that accurately accept valid currency. [Column 7, line 60 – Column 8, line 46]. An area of the acceptance region C_A for a valid coin is removed where it overlaps with a region S_A for a counterfeit coin. [Column 8, lines 47-52]. The region to be removed is selected not only because of the overlap with the counterfeit coin, but also because of the “very low frequency of occurrence for valid coins.” [Column 8, lines 52-53]. A more detailed, specific discussion of how the regions are selected for removal is lacking from Dobbins disclosure.

This aspect of Dobbins does not involve the transmission or reception of alarms of any kind. It does not involve the temporary alteration of acceptance criteria to a restricted acceptance window after an actual fraud attempt. It does not involve the exclusion of both lower and upper safety margins of acceptance criteria.

Accordingly, Dobbins fails to teach, disclose or suggest a “the processing means [] configured to utilize the normal acceptance window as the acceptance criteria until an alarm signal is received by said communication means via the network, and thereafter to modify the acceptance criteria to a restricted acceptance window, which

excludes the lower and upper safety margins of the normal acceptance window” as recited in Applicants’ claim 1.²

Another aspect of Dobbins disclosure describes an “anti-fraud and anti-cheat” method. [Column 9, line 65; see also Figure 8]. Dobbins asserts that by repeatedly inputting fraudulent coins, a “self-adjustment” feature of some coin, bill and other currency acceptance devices can be used to move the coin acceptance window (CAW) toward the invalid coin. [Column 9, line 66 – column 10, line 3 and lines 61-65; column 11, lines 28-33]. The CAW of valid coins is “defined by symmetrical limits ‘+3’ and ‘-3’ around the center point ‘0’ of the genuine coin distribution.” [Column 11, lines 52-56]. To avoid this problem, Dobbins sets a “cheat mode flag” when a marginal, but acceptable coin is found. While the cheat mode flag is set, the CAW is shifted away from the “near miss” coin:

“[A] determination is made whether the invalid coin fits within the ‘near miss’ area, ‘z’ between ‘3’ and ‘4’ on FIG. 7A (block 804). If the answer to that inquiry is yes, the system moves the center of the coin acceptance window a preset amount away from the invalid coin distribution curve (block 806). For example, with reference to FIG. 7A, the center of the coin acceptance window is moved from ‘0’ to ‘-1’.” [Column 11, lines 59-66].

² To the extent that the office action based the rejection on the *possibility* that Dobbins could be operated in the manner recited in Applicants’ claims, such a rejection is legal error. [1/11/08 Office Action at p. 9 (“does not preclude”)]. The PTO must identify either express or inherent disclosure of each claim element. Express disclosure is lacking, and inherent disclosure cannot be predicted on mere possibilities. See, e.g., *In re Robertson*, 169 F.3d 743, 745, 49 U.S.P.Q. 2d 1949, 1950-51 (Fed. Cir. 1999).

Alternatively, one of the boundaries may be moved. [Column 11, line 67 – Column 12, line 1]. Once the requisite number of acceptable coins is received, the CAW is shifted back to its original position. [Column 12, lines 15-19]. Although this aspect of Dobbins disclosure relates to responding to fraud attempts, it is limited to either shifting acceptance criteria or one of its boundaries. There is no teaching to exclude both upper and lower safety margins in response to a fraud attempt.

Moreover, Dobbins nowhere discloses that warnings to other acceptors should be issued based fraud attempts.

Dobbins' claim 1 (referenced by the Office Action at p. 9) describes the operation of a money validation apparatus with an "improved coin acceptance window center self-adjustment" feature. This method is said to allow adjustment of the coin acceptance window, while not preventing the problems of earlier center self-adjustment method discussed above. Specifically, only valid coins having small deviations from a center value of the coin adjustment window are permitted to affect self-adjustment of that center value, and coins deviating from a limited range of expected values do not effect the center self-adjustment. [Dobbins, Col. 13, lines 53-57; Figure 9]. The method involves the use of a cumulative sum to restrict adjustment of the center of the acceptance window:

"1. A method of operating a money validation apparatus which utilizes an acceptance window to authenticate test items, comprising:

[a] defining a deviation limit having a range of values surrounding a predefined point of the acceptance window;

- [b] generating at least one test signal in response to a test item;
- [c] accepting the test item if the test signal falls within the acceptance window;
- [d] incrementing a cumulative sum if the test signal is within the deviation limit and above the pre-defined point; and
- [e] modifying the acceptance window if the cumulative sum exceeds a preset number.”

An acceptance window is defined according to Dobbins’ “Improved Definition of Coin Acceptance Criteria,” which is discussed above. A range of acceptable values for legitimate coins is created. In step [a], a deviation limit from the center point of the acceptance criteria is defined. [Dobbins, Col. 13, lines 23-33]. When a coin or test item subsequently is input into the apparatus, a test signal is generated in step [b]. Then that signal is evaluated in step [c] against the previously determined acceptable values (from step [a]). If the test signal is within the deviation limit and above a set point, a cumulative sum is incremented in step [d]. [Dobbins, Col. 13, lines 34-40]. Finally, in step [e], the acceptance window is modified if the cumulative sum exceeds a preset number. [Dobbins, Col. 13, lines 46-52]. “Since counterfeit coins and slugs will almost in all cases deviate from the center point CNTR more than the limit DEV amount, this method virtually insures that counterfeit coins, slugs and the like will not affect the center self-adjust mechanism.” [Dobbins, Col. 13, lines 57-61]. This “center self-adjustment” is a shifting of the acceptance criteria to one direction or another. In this aspect, it is no different than Dobbins’ “anti-fraud and anti-cheat” method discussed above and does not exclude both lower and upper portions of the acceptance window.

Thus, Dobbins fails to teach, disclose or suggest “the processing means [] configured to utilize the normal acceptance window as the acceptance criteria until an alarm signal is received by said communication means via the network, and thereafter to modify the acceptance criteria to a restricted acceptance window, which the excludes lower and upper safety margins of the normal acceptance window” as recited in Applicants’ claim 1.

3. *Stieber Does Not Address Fraud Detection Or Responses Thereto And Cannot Disclose Applicants’ Processing Means*

Stieber relates to an automatic cash handling machine with wireless networked devices. The Office Action cited Stieber because of its alleged disclosure of Applicants’ communication means. Without commenting on that assertion, Applicants note that there is no allegation in the office action that Stieber discloses the “processing means” as recited in Applicants’ claim 1. Applicants cannot find in Stieber any discussion of fraud detection, any discussion of the transmission of an alarm signal between the base and remote cash handling devices in response to a fraud attempt, or any discussion that, in response to such an alarm signal, a criteria for accepting currency is altered or restricted to exclude lower and upper safety margins. Thus, Stieber – like Molbak and Dobbins – fails to teach, disclose or suggest “the processing means [] configured to utilize the normal acceptance window as the acceptance criteria until an alarm signal is received by said communication means via the network, and thereafter to modify the acceptance criteria to a restricted acceptance window, which excludes the

lower and upper safety margins of the normal acceptance window” as recited in Applicants’ claim 1.

Accordingly, as Applicants cannot find the “processing means” of Applicants’ claim 1 in any of the cited references, at least independent claim 1 respectfully is asserted to be in condition for allowance. Independent claims 8, 14, 21, 27 and 33, and dependent claims 2-7, 9-13, 15-20, 22-26 and 28-32 are asserted to be in condition for allowance for at least similar reasons.

Applicants have chosen in the interest of expediting prosecution of this patent application to distinguish the cited documents from the pending claims as set forth above. These statements should not be regarded in any way as admissions that the cited documents are, in fact, prior art. Likewise, Applicants have chosen not to swear behind Molbak and Stieber, both cited by the office action, or to otherwise submit evidence to traverse the rejection at this time. Applicants, however, reserve the right, as provided by 37 C.F.R. §§ 1.131 and 1.132, to do so in the future as appropriate. Finally, Applicants have not specifically addressed the rejections of the dependent claims. Applicants respectfully submit that the independent claims, from which they depend, are in condition for allowance as set forth above. Accordingly, the dependent claims also are in condition for allowance. Applicants, however, reserve the right to address such rejections of the dependent claims in the future as appropriate.

Appl. No. 10/616,852
Paper dated April 10, 2008
Reply to Office Action dated January 11, 2008

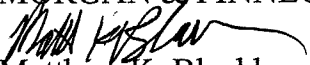
CONCLUSION

This application is respectfully asserted to be in condition for allowance.

An early and favorable examination on the merits is requested. If a telephone conference would facilitate the examination of this application in any way, the Examiner is urged to contact the undersigned at the number provided.

THE COMMISSIONER IS HEREBY AUTHORIZED TO CHARGE ANY ADDITIONAL FEES WHICH MAY BE REQUIRED FOR THE TIMELY CONSIDERATION OF THIS AMENDMENT UNDER 37 C.F.R. §§ 1.16 AND 1.17, OR CREDIT ANY OVERPAYMENT TO DEPOSIT ACCOUNT NO. 13-4500, ORDER NO. 1193-4049.

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Respectfully submitted,
MORGAN & FINNEGAN, L.L.P.
By: 
Matthew K. Blackburn
Registration No. 47,428

Correspondence Address:

MORGAN & FINNEGAN, L.L.P.
3 World Financial Center
New York, NY 10281-2101
(212) 415-8700
(212) 415-8701

Telephone
Facsimile